

# A NOTE ON *OPHIOTAENIA PUNICA* (CHOLODOVSKI, 1908), LA RUE, 1911

BY

T. SOUTHWELL

AND

S. ADLER

*(Received for publication 3 July, 1923)*

Two specimens, both gravid, were obtained from the intestine of *Causus rhombeatus*, in Freetown, Sierra Leone.

## EXTERNAL ANATOMY.

The larger complete specimen measured 9 cms. in length, and the maximum breadth was 3.3 mms.

*Head.* The head is almost square and measures 1.5 mm. broad; it is unarmed.

*Suckers.* The four suckers have a diameter of 0.67 mm. The neck is 0.7 mm. long.

The worm is made up of about one hundred and forty segments. The first proglottides are broader than long; they gradually lengthen towards the posterior, the last proglottis being 4 mm. long and 2 mm. broad.

The genital pores are irregularly alternate, and open at the middle of the lateral border.

## INTERNAL ANATOMY.

*Musculature.* The musculature consists of a series of (1) small subcuticular fibres, situated immediately beneath the cuticle, (2) a double layer of longitudinal muscles which are not strongly developed, (3) a few diagonal fibres, and (4) circular fibres which are very scanty.

*Excretory system.* There are two water vessels on each side, the ventral vessel being much larger than the dorsal vessel.

*Nervous system.* A single nerve is present on each side, lying lateral to the water vessels. The parenchyma is strongly developed.

*Genitalia.* The testes are confined to the lateral fields in front of the ovary, and median to the vitellaria. There are from one hundred and seventy to two hundred and thirty in each segment; they are oval in shape, their long axes being horizontal (fig. 1).

*Vas deferens.* The cirrus pouch first becomes evident about 15 mm. behind the head; it lies either anterior or posterior to the vagina and extends beyond the vitellaria, being up to  $670\mu$  in length (fig. 1).

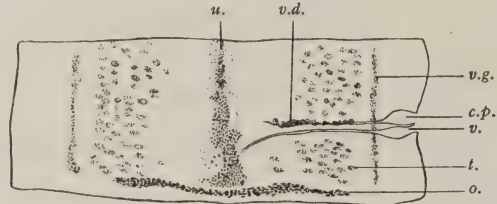


FIG. 1. *Ophiotaenia punica*. A ripe segment, shewing genitalia. v.g.—Vitelline glands. c.p.—Cirrus pouch. v.—vagina. t.—testes. o.—Ovary. v.d.—Vas deferens. u.—Uterus.  $\times 35$ .

The cirrus is spiny and is continuous with an internal seminal vesicle, which latter occupies about two-thirds of the cirrus pouch. The vas deferens lying outside the pouch is coiled.

*Ovary.* The ovary is long and narrow and is not bilobed (fig. 1); it is situated posteriorly.

*Vagina.* The vagina lies either anterior or posterior to the cirrus pouch. It runs almost straight towards the middle of the segment, and then turns posteriorly (fig. 1).

*Vitellaria.* The vitellaria are lateral, and consist of small acini measuring about  $30\mu$  to  $36\mu$  in diameter (fig. 1).

*Uterus.* The uterus is a straight tube running antero-posteriorly; in mature segments it has from eight to twelve lateral pouches on each side. There is a small shell gland situated immediately behind the middle of the ovary (fig. 2). In transverse

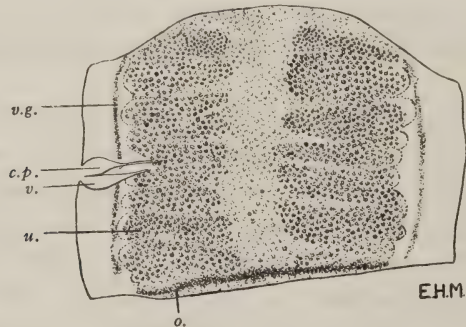


FIG. 2. *Ophiotaenia punica*. A segment shewing gravid uterus. v.g.—Vitelline glands. c.p.—Cirrus pouch. v.—Vagina. u.—Uterus. o.—Ovary.  $\times 35$ .

sections of segments in which the uterus was gravid no uterine pores were seen.

*Eggs.* The eggs are  $30\mu$  in diameter, and in appearance resemble the eggs of *Hymenolepis nana*. The oncosphere is from  $13\mu$  to  $15\mu$  in diameter. The embryophore has a thickness of about  $3\mu$  (fig. 3).



FIG. 3. *Ophiotaenia punica*. Egg.  $\times 733$ .

*Diagnosis.* *Ophiotaenia punica* was first found in a dog in Tunis by Cholodovski (1908), but, owing to its morphological characters, Hall, Ransom and La Rue thought the true host was a snake. They presumed that the dog had eaten a snake. Southwell (1922) recorded this parasite from *Paradoxurus hermaphroditicus* (Malayan palm civet) in Calcutta.

This is the first definite record of *Ophiotaenia punica* from a snake.

#### REFERENCES

- CHOLODOVSKI (1908). Über ein neuer Parasit des Hundes. *Zool. Anz.*, Vol. XXIII.
- LA RUE, G. R. (1914). A Revision of the Cestode Family *Proteocephalidae*. *Illinois Biol. Monog.*, Vol. I, Nos. 1 and 2. Urbana.
- SOUTHWELL (1922). Cestodes in the Collection of the Indian Museum. *Ann. Trop. Med. and Parasit.*, Vol. XVI, p. 127.